

PERCEPTIONS OF SAFER SEXUAL BEHAVIORS
AMONG WOMEN WHO HAVE SEX WITH WOMEN

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Chapter One

Introduction

Sexually transmitted diseases (STDs) are one of the largest public health issues facing health care providers today. There are more than 65 million people in the United States living with an incurable STD (Centers for Disease Control and Prevention [CDC], 2000). In addition, approximately 19 million people will contract an STD each year (CDC, 2004).

It is estimated that 1.4% of American women, aged 18 or over, identify as lesbian or bisexual. Due to the inherent difficulties of defining human sexuality, many more women may also participate in sex with other women (Laumann, Gagnon, Michael, & Michaels, 1994). Although women who have sex with women (WSW) are generally considered a low risk population, several studies indicate that STDs are reported by women in this group (Bailey, Farquhar, & Owen, 2004; Bailey, Farquhar, Owen, & Mangtani, 2004; Bauer & Welles, 2001; Fethers, Marks, Mindel, & Estcourt, 2000; Lemp, Jones, Kellogg, Nieri, Anderson, Withum, et al., 1995; Marrazzo, Koutsky, & Handsfield, 2001). While numerous studies report that the majority of lesbians have had at least one lifetime male sexual partner (Carroll, Goldstein, Lo, & Mayer, 1997; Diamnat, Schuster, McGuigan, & Lever, 1999; Fethers, Marks, Mindel & Estcourt, 2000), a few studies provide evidence for exclusive female-to-female transmission of certain STDs (Kellock, & O'Mahony, 1996; Marrazzo, Koutsky, Stine, Kuypers, Grubert, Galloway, et al., 1998; Marrazzo, Stine, & Wald, 2003). Despite this, many health care providers may routinely overlook the sexual health needs of WSW. This may result in a general lack of knowledge in lesbian and bisexual women concerning STDs and safer sexual behaviors.

Several studies indicate alarming percentages of WSW not adequately utilizing safer sexual behaviors with female or male partners (Carroll et al., 1997; Diamant et al., 1999). A few studies explore the perceptions of safer sexual behaviors among WSW (Fishman & Anderson, 2003; Marrazzo, Coffey, & Bingham, 2005); however, the need to further explore these perceptions remains. Also, no attempt to document how utilization of safer sexual behaviors and

perceptions of the risk of contracting an STD may differ according to the gender of the sexual partner has been made. Although ideas of monogamy have been implicated as a barrier to safer sexual behaviors among lesbians (Stevens & Hall, 2001), perceptions of monogamy have not been explored in both lesbian and bisexual women.

As health educators, nurses are often in a position to address sexual health needs specific to lesbians and bisexual women. Currently, there is limited research available to aid nurses in this task. In order to provide tailored education on STDs and risk reduction methods, it is necessary to gain an understanding of the perceptions that WSW have regarding safer sexual behaviors. Once nurses understand the common perceptions that lesbian and bisexual women have, they will be able to intervene more effectively and provide quality education on the prevention of STDs within this population.

The purpose of this study is to examine the perceptions of safer sex among WSW. The following research questions address this purpose.

Research Questions

- 1.) What are self-reported rates and types of STDs among WSW?
- 2.) What are WSW's perceptions of safer sexual behaviors and personal risk level and do their perceptions differ by gender of the sexual partner?
- 3.) What are the actual safer sexual behaviors of WSW by gender of the sexual partner?

Chapter Two

Review of Literature

The review of literature will address current knowledge regarding the sexual histories, prevalence of STDs, use and perceptions of safer sexual behaviors, and perceptions of STD risk level among WSW. Although research addressing sexual health issues for WSW has increased in recent years, few studies have examined perceptions of safer sexual behaviors among WSW in detail.

Sexual Histories of WSW

The sexual partners that WSW have are important in determining a lesbian or bisexual woman's risk level of acquiring an STD. Generally, the more sexual partners an individual has, the greater the risk of acquiring an STD. However, with WSW, the gender of the partner may also be an important factor, as it is easier for the transmission of STDs to occur by penile-vaginal intercourse or penile-anal intercourse. A common assumption of many health care providers may be that lesbians do not have sex with men, and therefore, are not at great risk for acquiring STDs. Several studies have demonstrated that this may be a precarious assumption and that sexual identity is a subjective state and is not necessarily an indication or predictor of past or present sexual behavior (Carroll et al., 1997; Diamant et al., 1999; Fethers et al., 2000). As this is a central concept to the current study, a review of the sexual histories of WSW is included to emphasize further the need for undertaking the study.

Diamant et al. (1999) conducted a cross-sectional study that included a questionnaire with 186 items on demographics, sexual orientation, sexual history with men, and gynecologic history. There were 7,929 females who responded to the survey; however, only the 6,935 women who identified as lesbian were included, as the purpose of the study was to assess the sexual activity of a population of women whose health care providers could make an assumption about their sexual history based solely on their identity.

Of the lesbian subjects, 77.3% reported having at least one lifetime male sexual partner. Those who engaged in penile-vaginal intercourse at least once comprised 70.5% of the sample and 17.2% had engaged in penile-anal intercourse at least once. Over the preceding year, 5.7% had one or more male sexual contacts. Lesbians who were not Caucasian, younger than 50 years, were not college graduates, and who had an annual income of \$20,000 or less were more likely to have had one or more male sexual partners in the past year (Diamant et al., 1999).

The study by Diamant et al. (1999) is useful in that it includes a large sample of lesbian women who reside in all 50 states. However, bisexual women were excluded from participation

in the study. Although the study contains information about lesbians' sexual history with men, no information about the sexual history with women is included (Diamant et al., 1999).

Carroll et al. (1997) conducted a study to investigate the prevalence of STDs in lesbian and bisexual women and assessed which sexual practices could be responsible for STD transmission. Both lesbian and bisexual women were included in the study, with 90.5% of the sample identifying as lesbian, 8.8% as bisexual, and 0.7% as heterosexual or other. Carroll et al. found that nearly half of the 421 subjects who responded to a survey had one to five lifetime male partners, 13.3% had six to ten, and 15.2% had more than ten. However, almost 20% of the women had never had a male sexual partner. Of the women who did have at least one lifetime male sexual partner, for 49.6% it had been at least 11 years since the last sexual encounter. Sixty-nine percent of the sample had only women as sexual partners within the last ten years. Nearly half reported having one to five lifetime female partners, 23% had six to ten, and 28% reported more than ten lifetime female partners. The study by Carroll et al. clearly indicates that it is likely for WSW to have a sexual history with one or more male partners. However, the data were not analyzed according to the sexual identity of the subject.

One study comparing the sexual histories of WSW and heterosexual women was undertaken. Fethers et al. (2000) conducted a retrospective cross-sectional study to assess the prevalence of STDs and other blood-borne infections, risk behaviors, and demographics in WSW. Information was collected on 2,831 women who attended a public inner city STD and HIV clinic in Sydney, Australia. Of these women, 1,408 reported a lifetime history of sexual activity with a female and were designated the WSW group and 1,423 reported no history of sexual activity with a female and were designated the control group. In the WSW group, 283 women were designated "exclusive WSW", as they reported sexual activity with females but none with males in the past 12 months. This division allowed two comparisons to be made: WSW and controls and exclusive WSW and controls (Fethers et al., 2000).

Of the WSW group, 93% reported a lifetime history of at least one lifetime male sexual partner. The median number of lifetime male sexual partners was significantly greater for WSW than the control group (12 partners versus 6, $p < 0.001$). Of the WSW group, 9% reported 50 or more lifetime male sexual partners compared to 2% of the control group ($p < 0.001$). However, in this study, 22% of the WSW group reported current sex work, compared to 11% of the control group ($p < 0.001$) (Fethers et al., 2000).

Baily, Farquahar, Owen, and Whittaker (2003) conducted a cross-sectional survey of lesbian and bisexual women to gather data about the sexual histories of WSW. Of the 1,218 women who participated, 803 were recruited from two lesbian sexual health clinics in the United Kingdom and 415 were drawn from a community sample in the United Kingdom and Scotland. Eighty-five percent of the whole sample reported past or present sexual activity with men. Similar to the results found by Diamant et al. (1999), younger women were more likely to report sex with men within the past year (23% of those under 25 years of age compared with 7% of those 36 years or older). The median number of male partners in the past year was one. Thirty-nine percent of the sample reported five or more lifetime male partners; however, 15% reported no lifetime male partners. Of the whole sample, 98% reported past or present sexual activity with women. The median number of female partners in the past year was one; however, 61% had greater than five lifetime female partners (Bailey et al., 2003).

A few studies have documented the sexual identity of male sexual partners that WSW have. Marrazzo, Koutsky, and Handsfield (2001) conducted a study that examined the characteristics of patients attending a female STD clinic. They found that 10.0% of lesbians and 28.9% of bisexual women had a lifetime history of a homosexual or bisexual sexual male partner, compared to 5.8% of heterosexual women. Fethers et al. (2000) also found that 15% of the WSW group reported sexual contact with a homosexual or bisexual male, compared to 5% of the control groups ($p < 0.001$).

From the review of the sexual histories of WSW, it is clear that sexual identity may not be a reliable predictor of sexual behavior. In all of the studies reviewed, the vast majority of WSW reported at least one lifetime male sexual partner. Both Diamant et al. (1999) and Bailey et al. (2003) found that younger WSW were more likely to have had a male sexual partner in the past year. However, neither study attempted to analyze the data according to sexual identity. Fethers et al. (2000) conducted a study that compared data for lesbian, bisexual, and heterosexual women. The results from this study indicated that WSW were more likely to have had a higher number of lifetime male sexual partners than the control group who had no female sexual partners.

Prevalence of STDs Among WSW

Although health care providers may assume that WSW are at a low risk for acquiring STDs, there is literature that suggests some STDs are diagnosed in this group. The possible methods of acquiring STDs through the sexual history of WSW have already been reviewed; however, transmission by sexual activities with both males and females must be considered. A few studies comparing the prevalence of STDs among WSW and heterosexual women have been undertaken. These studies are useful in describing the difference and similarities in risk, but may not indicate the true prevalence of STDs in the population, as many women may not seek treatment for symptoms.

Fethers et al. (2000) compared the prevalence of STDs between WSW and the control group. Findings were based on the retrospective analysis of clinical diagnostic tests and history. WSW were significantly more likely than the control group to report a lifetime history of STDs (44% vs. 32%; $p < 0.001$). Bacterial vaginosis (BV) was significantly more common among WSW than the control group (8% vs. 5%; $p = 0.001$). Hepatitis C and hepatitis B were also more common in WSW ($p < 0.001$). Genital warts were more common in the control group than in WSW (11% vs. 8%; $p < 0.001$). Rates of genital herpes, gonorrhea, and Chlamydia were similar among groups (Fethers et al., 2000).

Marrazzo et al. (2001) also compared the prevalence of STDs among WSW and heterosexual women attending a STD clinic. Women were not questioned regarding the lifetime incidence of STDs, but data were based only on the clinical and laboratory findings at the clinic. Similar numbers of each group were found to have BV (21.6% of women who have sex with females only, 27.6% of women who have sex with both males and females, and 24.3% of women who have sex with males only). This differs from the findings reported by Fethers et al. (2000) that indicated BV is more common in WSW. Marrazzo et al. reported rates of trichomoniasis and vulvovaginal candidiasis were also similar across groups. Similar numbers of bisexual and heterosexual women tested positive for HIV (0.7% s. 0.3%) and syphilis (1.2% vs. 1.4%).

Other studies examined the self-reported prevalence of STDs among WSW. Diamant et al. (1999) found that 17.2% of the subjects reported a lifetime diagnosis of an STD. Six percent of the sample reported trichomoniasis, 4.8% genital or anal warts, 4.6% Chlamydia, 3.3% genital or anal herpes, 2.0% pelvic inflammatory disease (PID), and 1.62% reported a lifetime diagnosis of gonorrhea. Less commonly reported STDs included syphilis (0.3%) and HIV (0.1%). Lesbians who reported six or more lifetime male sexual partners were most likely to have a lifetime history of an STD. Those who had participated in penile-vaginal intercourse were significantly more likely to report an STD compared to those who had not (21.4% vs. 7.3%; $p < 0.001$) (Diamant et al., 1999).

Morrow and Allsworth (2000) conducted a study to describe the frequency of STDs and sexual risk behaviors in WSW. Participants included 504 self-identified lesbian and bisexual women present at women's cultural events, HIV/STD service organizations, and women's health collectives that completed a cross-sectional questionnaire. Of the women, 87% self-identified as lesbian and 13% self-identified as bisexual. Bisexual women were more likely than lesbians to report a lifetime diagnosis of any STD (38% vs. 24%; $p = 0.01$). Of all the women, the most commonly reported STDs were "crabs" (9%), genital warts (6%), Chlamydia (6%), and genital

herpes (5%). Bisexual women were more likely than lesbians to report gonorrhea (10% vs. 2%; $p=0.001$) and genital warts (13% vs. 5%; $p=0.009$).

Carroll et al. (1997) found that STDs were more common among the 80% of lesbians who had a lifetime history of at least one male sexual partner. STDs were also more common among women who reported having a female sexual partner with a lifetime history of prior heterosexual contact, implicating that the sexual history of the partner must be considered. Carroll et al. assessed the prevalence of STDs among lesbian and bisexual women in relation to the number of years since the last male sexual partners. STDs were commonly diagnosed during times when women reported no recent male sexual partners. Of women whose last male sexual encounter was five or more years ago, 22.2% reported gonorrhea, 37.5% Chlamydia, 11.1% trichomoniasis, 22.2% genital herpes, 23.5% genital warts, 50.0% human papillomavirus (HPV)(as evidence by an abnormal PAP), 20.0% PID, and 32.1% reported BV. (Carroll et al., 1997).

Overall, WSW who have a higher number of sexual partners or a lifetime history of a male sexual partner may be at an increased risk for STDs. Based on the studies by Marrazzo et al. (2001) and Morrow and Allsworth (2000), bisexual women may be more likely to report a diagnosis of certain STDs. The current study will allow further analysis of the prevalence of STDs in a sample of WSW who are not seeking treatment for symptoms of an STD. This may allow further insight into the self-reported prevalence of STDs among WSW.

Perceptions and Use of Safer Sexual Behaviors Among WSW

The use of safer sexual behaviors among lesbian and bisexual women has been described in several studies. From these studies, it is clear that, in many cases, WSW are not adequately protecting themselves from the possibility of acquiring a STD. As WSW may participate in a variety of sexual activities with male or female partners, the use of safer sexual behaviors with both male sexual partners and female sexual partners must be addressed.

In the study conducted by Carroll et al. (1997), subjects described the use of protection during sexual encounters with both male and female partners. Of those women who had at least one lifetime male sexual partner, 33.7% had not used a barrier during penile-vaginal intercourse and 40.6% had not used one during penile-anal intercourse. During oral-genital contact with a male partner, 36.1% had not used a barrier and 29.6% did not use a barrier during genital-genital contact. With female sexual partners, 48.2% did not use a barrier during the use of sex toys and 78.6% did not use a barrier during oral-genital contact. With genital-genital contact with a female partner, 70.1% did not use a barrier. However, total numbers of women participating in each activity are not provided and neither is the frequency that sexual behaviors occurred without using protection (Carroll et al., 1997).

Diamant et al. (1999) found that a much higher percentage of WSW subjects did not use a barrier during penile-vaginal intercourse. Of the subjects who had a lifetime history of vaginal intercourse with a male sexual partner, 88.2% reported they had participated in penile-vaginal intercourse without a condom. Only 69.1% reported that they had ever used a condom during penile-vaginal intercourse. Subjects were more likely to have not used a condom during penile-vaginal intercourse if they were older than 50 years or if they reported more than one lifetime male sexual partner. Of the women who reported having penile-anal intercourse at least once, 15.8% had a lifetime history of not using a condom at least once and only 4.8% reported ever using a condom during anal intercourse. Diamant et al. solicited the incidence of never using a barrier, but as with Carroll et al. (1997), the frequency that a barrier is used is unknown.

Morrow and Allsworth (2000) explored the lifetime barrier use during sexual activities among WSW. Of the women, 8% of lesbians and 12% of bisexual women reported never attempting to use a barrier during sex. Women who reported any use of condoms included 16% of the lesbians and 66% of bisexual women. Those who reported any latex dam use included only 7% of lesbian women and 4% of bisexual women. Report of any use of plastic wrap for oral sex was even lower, at 1% and 9%, respectively. However, the use of latex gloves for sexual

activities was higher at 6% of lesbian and 12% of bisexual women. Although Morrow and Allsworth solicited the frequency of ever using a barrier, how often women are using the barriers is not determined.

Bailey et al. (2003) questioned subjects on the frequency of using safer sexual behaviors. Three hundred and twenty-eight women in the sample were asked additional questions about safer sex behaviors with men and women in the past 10 years. Of those women who reported oral-genital sex with men, 80% never used condoms, 16% used them occasionally or often, and 4% always used them. Of the women who reported penile-vaginal intercourse, 32% had never used condoms, 45% used them occasionally or often, and 23% always used them. Of the women who reported penile-anal intercourse, 42% had never used a condom. Eighty-six percent of those who reported oral-genital sex with women had never used dental dams, while 13% used them occasionally or often and 1% used them always. Of the women who reported using sex toys with other women, 22% never washed them before sharing. Thirty-one percent washed the sex toys occasionally or often and 47% always washed them before sharing. Fifty-two percent of the women who used sex toys never used a condom when sharing; however, 22% used them occasionally or often and 26% always did (Bailey et al., 2003).

Fisherman and Anderson (2003) examined the characteristics of lesbians who practice safer sexual behaviors. An anonymous survey was distributed during a women's music festival and 78 women who self-identified as lesbian were included. Of these women, 4% reported current sexual relationships with multiple female partners, 3% with male sexual partners, and 1% were sex workers with male clients but had a female partner. The knowledge concerning safer sexual behaviors, as well as the frequency of use was solicited. The first subscale of the 19-item Knowledge, Risk, and Sexual Practices (KRSP) questionnaire, Safer Sexual Practices, was analyzed to determine this information. The mean score on the Safer Sexual Practices subscale was 29.1 (SD=3.7; scale from 10-40), which reflected moderate use of the safer sexual

practices included on the scale. Women reported knowledge of the use of barrier methods (89% to 99%) (Fishman & Anderson, 2003).

Knowledge of the safer sexual behavior of not engaging in sex during menstruation was also high at 92%. However, 39.7% of the women reported no knowledge of not sharing razors with a partner and 34.8% had no knowledge of the safer sexual behavior of not brushing or flossing teeth before sexual activities. Knowledge of a safer sexual behavior did not always predict use of the behavior. Although 98.5% of women reported knowledge of using a dental dam during oral sex, 91% never used this practice. Ninety percent of the women reported knowledge of using a condom on a sex toy, but 60% never practiced this safer sexual behavior. The combination of the knowledge and frequency of using safer sexual behaviors seen in the study by Fishman and Anderson (2000) is useful, but the women were not questioned on the use of safer sexual behaviors with male sexual partners and no bisexual women were included in this study.

Marrazzo, Coffey, and Bingham (2005) conducted a qualitative study to aid in the development of a safer sex intervention for WSW. Focus group discussions were conducted with 23 women who self-identified as lesbian or bisexual. All women were between the ages of 18 and 29. Many participants spoke of the use of safer sexual behaviors as an interference to the mood of the sexual encounter. For example, taking time to clean sex toys before sharing with a partner was viewed as an inconvenience that spoiled the moment. Although gloves were commonly recognized as a protective barrier, most women agreed that they were not practical due to inconvenience, discomfort, and the perception that only “promiscuous” women would use them. The women also had negative opinions about the use of topical antimicrobial solutions for hand washing. Many participants felt that these solutions are too “harsh” for use during sexual activities. These perceptions of safer sexual behaviors among lesbians and bisexual women are insightful, but it would also be useful to know if perceptions differ according to the gender of the sexual partner.

It is clear that the use of safer sexual behaviors among WSW with both male and female sexual partners is lacking. What the literature does not document is how the use of safer sexual behaviors may differ according to the gender of the partner. Although Bailey et al. (2003) included the frequency of use of safer sexual behaviors according to male or female partners, it is not known how an individual woman may differ in this regard (i.e. how the same woman may act if the partner is male or female). In addition, none of the studies attempted to document how often women actually believed they were practicing safer sex.

Perceptions of STD Risk Level

The perception of personal STD risk among lesbians and bisexual women may be an important indicator for the actual use of safer sexual behaviors. As the lack of safer sexual behavior use among WSW is concerning, it is necessary to explore the perceptions of STD risk. Although a few studies have attempted to do this, there is not a clear picture of how this may relate to the actual use of safer sexual behaviors.

Stevens and Hall (2001) conducted a large qualitative study to understand HIV risk-taking and HIV risk-reduction activities of lesbians and bisexual women. The study was part of a community-based HIV prevention project implemented in San Francisco, California. The sample consisted of 1,189 women who self-identified as lesbian or bisexual. Twenty percent of the women reported that they generally did not use barriers when participating in sexual activities with a male. Fifty-six percent reported that they generally did not use barriers when participating in sexual activities with a female. In spite of this, a common belief was that WSW did not have to worry about contracting HIV, and as a result, many women were unfamiliar with HIV prevention methods, such as using condoms or not sharing intravenous drug needles. Most women did not perceive unprotected sexual activities between women as a risk for HIV transmission. However, those who did perceive some risk reported difficulties in using barriers when participating in sexual activities with other women. Twenty percent of the women also reported inconsistent practice of safer sex with both men and women. A common explanation for this practice was

trusting intuition to “tell” if a sexual partner has an STD. A relationship characterized by mutual feelings of love was also a reason cited for using inconsistent safer sexual behaviors. Many of the women cited monogamy as a key HIV prevention strategy. However, definitions of monogamy by participants varied a great deal. For some women, all sexual relationships were considered monogamous, primarily because the women did not view themselves as promiscuous. For some, using safer sexual behaviors in a monogamous relationship implied a lack of trust of the partner (Stevens & Hall, 2001).

Dolan and Davis (2003) conducted a qualitative study to determine the significance of lesbian’s subjective constructions of vulnerability to STDs. The sample consisted on 162 women is a southeastern city who chose to participate in a “Lesbian Sex Project”. All of the 162 participants completed a survey, 67 of the women completed in-depth interviews, and 24 participated in focus groups. Of the respondents, 62% identified as “lesbian”, 15% as “bisexual”, 3% as straight (but had a history of female sexual partners), and the remaining identified as “gay”, “queer”, “dyke”, “transgendered”, or “other”. Participants reported numerous risky sexual behaviors and 23% of the sample reported a lifetime history of at least one STD.

One view held by women in the study by Dolan and Davis (2003) was that women who are lesbians are at very low risk for STDs simply because of their sexual identity. These women believed that safer sexual behaviors are irrelevant to lesbians as a group. A common perception by lesbian participants was that women who have sex with men are at high risk for STDs and many spoke of avoiding sexual contact with these women. A second theme focused on the idea that lesbian women were protected from STDs due to the ability to sense which partners have an STD, similar to the findings by Stevens and Hall (2001). Nearly 60% of participants held this point of view and many spoke of the use of honesty and communication in the prevention of STDs. A third theme was the idea that lesbian women are just as vulnerable to acquiring an STD as any other group. About 30% of the sample held this point of view, many of whom had more knowledge about STDs than other participants or had already acquired an STD. Dolan

and Davis concluded that lesbian's perception of risk of acquiring an STD is socially constructed. They found that many of the participants shifted their ideas about risk over time, often in response to information about STDs, influences of partners, or acquiring an STD.

Marrazzo, Coffey, and Bingham (2005) led participants in the focus groups to discuss their perceptions of personal risk of STD transmission. Many women were aware that the exchange of bodily fluids allows for the risk of STD transmission, and participants generally agreed that penetrative activities presented a greater risk. Despite this, several participants stated that lesbians do not need to use condoms when using sex toys because they are not at risk for STDs. There were also perceptions that one can tell if a partner has an STD simply by looking at them, similar to the findings by both Steven and Hall (2001) and Dolan and Davis (2003). Many women assumed that there would always be visual symptoms, such as sores or vaginal discharge, which would allow one to determine if a partner has an STD (Marrazzo, Coffey, and Bingham, 2005).

Fishman and Anderson (2003) questioned subjects on the perception of risk for acquiring HIV. Of the 78 women, 53% believed that they were at low risk for HIV and 40% believed that they had the same risk level as other groups. However, no quantitative studies attempted to solicit WSW perceptions of risk level for acquiring STDs. Although the contributions of Steven and Hall (2001), Dolan and Davis (2003), and Marrazzo, Coffey, and Bingham (2005) are valuable, it is still necessary to continue to explore perceptions of safer sexual behaviors and risk level among WSW in detail. It is an undertaking of the current study to add to the knowledge of perceptions of personal STD risk level among WSW. This study will also be useful to determine if perception of risk level differs according to the gender of the sexual partner.

Conclusion

There have been numerous studies documenting the sexual histories of WSW (Bailey et al., 2003; Carroll et al., 1997; Diamant et al., 1999; Fethers et al., 2000). From these studies, it

is clear that health care providers must not assume that women identifying as lesbian or bisexual are not currently involved in risky sexual activities. Many studies have also identified that alarming numbers of WSW may not be utilizing safer sexual behaviors (Bailey et al., 2003; Carroll et al., 1997; Diamant et al., 1999; Fishman & Anderson, 2003; Morrow & Allsworth, 2000). However, the exploration of the perceptions and use of safer sexual behaviors in this population is still necessary. The effect of the gender of the sexual partner on utilization of safer sexual behaviors is lacking in the literature. No studies have attempted to solicit how frequently WSW believe they are practicing safer sex and few studies exist to elicit perceptions of personal risk level of acquiring an STD. The role of monogamy as a safer sexual behavior in this population is also unclear. The present study exists to fulfill the purpose of filling these gaps and determining the perceptions of safer sexual behaviors among WSW.

Chapter Three

Methods

The study is a nonexperimental, cross-sectional, descriptive survey. The purpose of the study is to examine the perceptions of safer sexual behaviors among WSW. Three research questions address this purpose:

Research Questions:

- 1.) What are self-reported rates and types of STDs among WSW?
- 2.) What are WSW's perceptions of safer sexual behaviors and personal risk level and do their perceptions differ by gender of the sexual partner?
- 3.) What are the actual safer sexual behaviors of WSW by gender of the sexual partner?

Human Subject Concerns

Numerous steps were taken to reduce psychological risks to subjects. Subjects were told of the purpose of the study during the recruitment process. They were informed that the questionnaire focuses on sexual health and may contain sensitive material. No names were

collected on any forms and it was not possible to link names to questionnaires. Subjects were reminded on the questionnaire that they did not have to answer any item that made them feel uncomfortable or distressed. Participants were also informed that they could choose not to participate in the study at any point. Questions were carefully worded to minimize psychological harm. In addition, there was an item on the questionnaire that allowed subjects to rate the ease of answering questions. There was also an item that provided subjects with an outlet to express additional concerns. Subjects also had the opportunity to contact the co-investigator by e-mail or telephone with any concerns.

The co-investigator explained the purpose of the study, the right to refuse to participate in the study, and the likely risks and benefits during the recruitment process. There were few direct benefits to subjects for participation in the study. Satisfaction that information they provide may be used in the future to help members of a group to which they belong was the only foreseeable benefit to participants. Subjects were offered compensation in the form of a \$10 dollar gift certificate redeemable at a bookstore. Informed consent was implied by returning of the questionnaire.

To ensure confidentiality, contact information was collected only for the purpose of mailing the questionnaire and returning of the gift certificate. Contact information was stored in locked files, accessible only to the principal investigator and co-investigator, and destroyed immediately after the mailings. No names or identifying information were placed on the questionnaires. Data was reported in the aggregate only. All returned questionnaires were stored in locked files in the College of Nursing at The Ohio State University, again accessible only to the principal investigator and the co-investigator.

Sample

Inclusion criteria for the sample were the following: (1) female gender; (2) 18 years of age or older; (3) ability to read and write English; (4) at least one lifetime female sexual partner and/or self-identify as lesbian or bisexual. Participants had to be at least 18 years of age to

eliminate concerns that would be present if dealing with a population that included minors. The women had to have the ability to read and write in English due to the nature of the questionnaire. Finally, the last criterion considered that some WSW may not identify explicitly as lesbian or bisexual. Likewise, there may be a woman who identifies as lesbian or bisexual, but has not had a sexual relationship with another female. To address the purpose of the study, it was important to include all of these women.

Subjects were recruited primarily from the Columbus, Ohio area. An advertisement concerning the study was placed in the campus newspaper at The Ohio State University, the Lantern. The study was also advertised on an Internet website specific to the gay and lesbian community in Columbus, Ohio. This website is <http://www.outincolumbus.com>. In addition, two student organizations at The Ohio State University, the Gay, Lesbian, Bisexual, and Transgendered (GLBT) Services and Jewish Queers and Allies, placed information concerning the study in a newsletter that members on their respective lists-serves receive. Flyers were posted in locations that cater to the gay and lesbian community.

Sampling bias existed in the form of convenience sampling. Subjects who volunteered to participate in the study may differ in some way from other WSW who chose not to participate. With the sampling plan, the degree of external validity was limited to WSW in the Columbus, Ohio area.

Procedure

The study was approved by the Institutional Review Board (IRB) at The Ohio State University in November 2005. During the recruitment process, subjects were instructed to contact the co-investigator by e-mail. The co-investigator screened subjects for eligibility using a prepared scripted e-mail. If the subjects were eligible, they were instructed to send contact information to the co-investigator by e-mail. This was the first time that contact information was collected.

The questionnaire was mailed to 23 subjects along with an enclosed return envelope with paid postage. Also included with the original questionnaire was a blank postcard with paid postage. Subjects were advised to write their names and addresses on the postcard and return it separately from the questionnaire if they wished to receive the gift certificate. This was the second and last time that contact information was collected.

Return of the questionnaire to the researchers was considered implied consent. Twenty-three questionnaires were mailed and eighteen women returned the questionnaires for a participation rate of 78.3%. Questionnaires were returned to the principal investigator at The Ohio State University College of Nursing. All data were secured in locked files in the College of Nursing. These files were accessible only to the principal investigator and the co-investigator. Data were entered into a database using a personal computer. The database was stored on backup discs. Only the principal investigator and the co-investigator had access to these databases.

Instruments

Due to the general lack of existing knowledge in the area of safer sexual behaviors and WSW, there were no appropriate preexisting instruments. The instrument was compiled using a variety of instruments utilized by the principal investigator in previous studies. Experts in research methods, lesbian health, and sexual health reviewed the instrument for face validity. In addition, two representatives from the WSW population reviewed the instrument for comprehension and readability.

The instrument consists of 80 items. There are 75 forced-choice or rating scale items and 5 open-ended items. The first section of the questionnaire is the women's sexual risk assessment. There are 22 items that focus on sexual risk with female sexual partners only. The following 26 items apply to sexual risk with male partners. Questions ask how often the participant engages in the use of a particular safer sexual activity or a risky behavior. Subjects were instructed to mark one of the five responses: does not apply to me, never, some of the

time, half of the time, and most of the time. The next section focuses on perceptions of safer sexual behaviors and consists of three items. These items are open-ended questions that ask about views or opinions about safer sex in general, safer sex with a woman, and safer sex with a man. The next six items, when coupled with information from the demographic section on sexual history, served as a measure of how safer sexual behaviors and perceptions of risk vary according to the gender of the sexual partner. Two of the items focus on how often the subject feels she practices safer sex with women and then with men. The next two items ask how often the respondent has been concerned about acquiring an STD with women and then with men. Finally, the last two items in this section ask the subject to rate how safe particular safer sexual activities are when performed with a female and then with a male partner. There is one item that is a measure of monogamy and asks an open-ended question about views of monogamy. Part of this question, asking if there is anything safer about having sex with a monogamous partner, can be answered by checking yes or no.

There are nine items gathering demographic information including age, ethnicity, religious preference, employment status, years of education, highest educational degree obtained, current school enrollment status, living arrangements, and partner status. Five items focus on sexual history with women and five on sexual history with men. Five items measure history of STDs and genital infections. There is one item that asks the respondent the ease of answering questions and one that asks the women to share any additional concerns or information regarding sexual health. The questionnaire takes approximately 30 minutes to complete.

Data Analysis

Descriptive statistics were used to analyze the 75 forced-choice items, including all demographic information. Data were analyzed using the statistical software SPSS. For the purposes of this study, analysis of the five open-ended questions will not be included.

Chapter 4

Results

Demographic Characteristics

The sample consisted of 18 subjects with a mean age of 36.7 years ($SD= 13.50$, range= 20- 61 years). The sample was 94.4% Caucasian. Those employed full-time comprised 77.8% of the sample and the majority had attended graduate school (see Table 1). Half of the sample described their current partner status as married or partnered. Women who described their sexual orientation as lesbian or gay comprised 88.3% of the sample, while 16.7% described themselves as bisexual. All of the subjects reported having had sex with a female and 50% reported having had sex with a male (see Table 2).

Self-reported Rates and Types of STDs

Women reporting a lifetime diagnosis of an STD comprised 16.7% of the sample (see Table 3). Genital warts were the only reported STD by these women. All of these subjects reported having sex with both men and women. Of the women who reported a lifetime diagnosis of STDs, 66.7% identified as lesbian. One woman suspected having an STD at some point in her lifetime, but did not seek treatment. This subject identified as lesbian and reported having sex with only females. Other reported gynecological infections included yeast infection (72.2%), urinary tract infection (UTI) (38.7%), and bacterial vaginosis (BV) (11.1%) (see Table 4).

Perceptions of Safer Sexual Behaviors and Personal Risk Level

The sample was asked how often they practice safer sexual behaviors with women on a scale of 1 (Never) to 5 (Always). The mean was 3.3 ($SD= 1.6$). By sexual orientation, those that identified as lesbian ($n= 15$) believed they practice safer sex with female partners more often than those that identified as bisexual ($n= 3$) ($M= 3.8$, $SD= 1.5$ vs. $M= 2.67$, $SD= 1.2$) (see Table 5). When asked how concerned the sample is about acquiring an STD, the mean was 1.7 ($SD= 1.0$) (see Table 6). The riskiest sexual behavior with a female partner was considered to be using a sex toy for anal sex with a barrier on a scale of 1 (Not at all risky) to 5 (Extremely risky)

($M= 3.4$, $SD= 1.1$). The second riskiest behavior was engaging in oral sex without a barrier ($M= 3.2$, $SD= 1.0$) and the third riskiest behavior was using a sex toy for vaginal sex without a barrier ($M= 2.9$, $SD= 1.2$) (see Table 7).

Data were analyzed for the seven subjects that reported having sex with women and men. With both female and male partners, these women reported practicing safer sex at the same frequency (female partner: $M=3.3$, $SD= 1.4$; male partner: $M= 3.3$, $SD= 1.4$) (see Table 5). The women were slightly more concerned about acquiring an STD with a male partner than with a female ($M=2.0$ vs. $M=1.7$) (see Table 6). For having sex with a female partner, the top three riskiest behaviors were consistent with the group as a whole; however, the order of the risky behaviors was different. For those women that reported having sex with women and men, the riskiest behavior was considered to be having oral sex without a barrier ($M= 3.0$, $SD= 0.9$). The second and third riskiest behaviors were using a sex toy for vaginal sex without a barrier and using a sex toy for anal sex without a barrier ($M= 2.7$, $SD= 0.8$). For having sex with a male partner, the riskiest behavior was considered to be having oral sex without a barrier ($M= 3.2$, $SD= 1.2$). The second riskiest behavior was using a sex toy for anal sex without a barrier ($M= 3.0$, $SD= 1.3$) and the third riskiest behavior was touching genitals without clothing ($M= 2.3$, $SD= 0.8$). There were no statistically significant differences between the type of risky sexual behaviors with female partners or male partners (see Table 7).

Actual Safer Sexual Behaviors

The average number of lifetime female partners was 4.53 ($SD= 4.76$, range 1-19). Of the women who had casual partners, 40% had used a barrier with the last casual female partner and 50% had used a barrier with the last casual male partner. With the last regular female partner, 5.6% had used a barrier and 40% had used a barrier with the last regular male partner.

The knowledge level of the sexual history of partners of the women was assessed. On all of the knowledge items, the subjects reported having more knowledge with regular female and male partners than with casual partners (see Table 8 and Table 9). Except for having

knowledge of the last partner's lifetime number of sexual partners, the subjects had less knowledge of the casual male partners.

Chapter 5

Discussion

Sexual Histories of Women Who Have Sex with Women

Half of the sample ($n=9$) reported a lifetime history of at least one male sexual partner. This is lower than the findings suggested in the literature. Fethers et al. (2000) reported 93% of the sample having at least one male sexual partner and Bailey et al. (2003) found 85% of the sample reported past or present sexual activity with men. Carroll et al. (1997) found that 80% of the sample had a lifetime history of at least one male sexual partner and Diamant et al. (1999) reported a finding of 77.3% of the sample. The lower finding in this study may be accounted for by the small sample size. Many of the studies reviewed in the literature included samples of hundreds of women. An accurate understanding of the sexual histories of WSW cannot be obtained from the modest sample size of 18.

Prevalence of STDs Among WSW

The self-reported prevalence of STDs in the sample was similar to that found by Diamant et al. (1999) (16.7% vs. 17.2%). It was less than the rates reported by Fethers et al. (2000) and Morrow and Allsworth (2000). Genital warts were the only reported STD by women in the sample. The prevalence of genital warts in the sample was slightly less than that found by Carroll et al. (1997) (16.7% vs. 23.5%), but greater than that found by Morrow and Allsworth (16.7% vs. 6%) and Diamant et al. (16.7% vs. 4.8%). The lifetime diagnosis of only one type of STD in the sample differs from findings in literature that suggested a variety of STDs would be reported by this group (Carroll et al.; Marrazzo et al., 2000). This finding can be explained by the small sample size. If the sample included more subjects, different types of STDs likely would be reported.

The rate of yeast infections in the sample was greater than that reported by Carroll et al. (1997) (72.2% vs. 49.6%). However, the rate reported by the sample is similar to the overall rate of all adult women, which is 75% (CDC, 2005). The rate of UTIs has not been evaluated in this population in the literature. Carroll et al. reports “any gynecological infection” at 38.0% but does not specify if this includes UTIs. Orenstein and Wong (1999) estimate that 40% of women report having a lifetime diagnosis of a UTI. Overall, the results of other gynecological infections are similar to that found reported by samples that include heterosexual women.

Perceptions and Use of Safer Sexual Behaviors

This study provides valuable information regarding perceptions and use of safer sexual behaviors among WSW that is not documented in the literature. The findings indicate that the women included in this study believe that they practice safer sex about half of the time with both female and male partners ($SD= 3.3$). The use of barriers with the last casual and regular female and male partners is less than adequate. Only 5.6% of the women reported using a barrier with the last regular female partner.

Perceptions of Personal Risk Level

This study attempted to quantify perceptions of personal risk level among WSW. The women were not greatly concerned about acquiring an STD from either a female or male partner. The subjects did not rate many of the high-risk sexual behaviors as being risky. These findings are congruent with those reported by Dolan and Davis (2003), Marrazzo, Coffey, and Bingham (2005), and Fishman and Anderson (2003). This suggests that WSW tend to believe that they are not at risk for STDs.

Limitations

This study must be viewed in light of its limitations. The sample size is not large enough to allow for generalization of findings. The sample is homogenous and consists of 94.4% Caucasian women. The average age of the women ($M= 36.7$) is older than the age group of women who are considered most at risk for STDs. The women were also highly educated, with

two-thirds having attended graduate school. The demographic characteristics of the sample may not be representative of the WSW population. The sample was also one of convenience. All of the subjects actively chose to participate in the study, which may have influenced the results because these women may differ from others who chose not to participate.

Implications for Practice and Research

The implications for nursing practice are limited due to the small sample size. However, nurses working in areas of women's health need to be aware of risk factors that exist for WSW. Women in this population share many of the same risk factors as heterosexual women. Many report having at least one lifetime male sexual partner. Despite misconceptions that exist, STDs are reported by WSW. Many of the women are not practicing safer sexual behaviors and they are aware that they are not. A possible explanation for the lack of safer sexual behavior use may be that WSW overall are not greatly concerned about acquiring STDs. There may be a need for nurses to provide WSW with STD education and the use of safer sexual behaviors to reduce risk.

A larger sample size is necessary to allow for generalizations of the findings. A more heterogeneous sample may provide additional information about the perceptions among WSW. For future research, more bisexual women should be included to determine if their views of safer sexual behaviors truly differ from that of lesbians. The meaning of "safer sex" and what this entails to the women could be further explored. Also, the role of monogamy in safer sex could be solicited. More well-designed studies are needed to determine the definition of risky sexual behaviors and inform nurses how to provide education to WSW.

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Table 1
Demographic Characteristics of the Sample (n=18)

Characteristic	<u>n</u>	%
Age		
20-29	8	44.4%
30-39	2	11.1%
40-49	4	22.2%
50-59	3	16.7%
60-69	1	5.6%
Ethnic origin		
Caucasian/White/European American	17	94.4%
Other	1	5.6%
Religion		
Christian	7	38.9%
None	7	38.9%
Jewish	2	11.1%
Buddhist	1	5.6%
Other	1	5.6%
Employment		
Full-time	14	77.8%
Part-time	3	16.7%
None	1	5.6%

(Table 1 continues)

(Table 1 continued)

Characteristic	<u>n</u>	%
Highest level of education		
Some college	3	16.7%
College graduate	3	16.7%
Graduate school	12	66.7%
Current partner status		
Married/Partnered	9	50.0%
In a relationship	8	44.4%
Divorced/Separated	1	5.6%
Sexual orientation		
Lesbian/Gay	15	83.3%
Bisexual	3	16.7%

Table 2

Sexual Experiences by Gender of Partner

Sexual orientation	<u>Female partner</u>		<u>Male partner</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Lesbian	15	100%	4	26.7%
Bisexual	3	100%	3	100%

Table 3

Rates of Diagnosis of Sexually Transmitted Diseases (STDs) Among WSW

	<u>n</u>	%
Diagnosed with an STD	3	16.7%
Suspected an STD, but did not seek treatment	1	5.6%

Table 4

Lifetime Incidence of STDs and Other Infections Among WSW

Type of STD or Infection	<u>n</u>	%
Yeast infection	13	72.2%
Bladder infection	7	38.9%
Genital warts (HPV)	3	16.7%
Bacterial vaginosis (BV)	2	11.1%

Table 5

Means and Standard Deviations of Perceptions of How Often Lesbian and Bisexual WomenBelieve They Are Practicing Safer Sex with Female or Male Partners

	Lesbian			Bisexual		
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>
Female	15	3.80	1.52	3	2.67	1.15
Male	4	3.25	1.71	3	3.33	1.15

Note. Scale was 1-5 with the following anchors: 1= Never, 5= Always

Table 6

Means and Standard Deviations of Perceptions of How Often WSW are Concerned About Acquiring an STD from a Male or Female Partner

Partner	<u>n</u>	<u>M</u>	<u>SD</u>
Female	18	1.72	0.96
Male	7	2.00	0.56

Note. Scale was 1-5 with the following anchors: 1= Never, 5= Always.

Table 7

Perceptions of Sexual Behaviors and Personal Risk Level Among WSW

Sexual Behavior	Female Partner			Male Partner		
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>
Closed mouth kissing	18	1.22	0.55	7	1.29	0.76
French kissing	18	1.67	0.59	7	2.14	0.69
Touching genitals through clothing	18	1.06	0.24	7	1.00	0
Touching genitals without clothing	18	2.33	0.97	7	2.29	0.76
Oral sex with a barrier	18	1.61	0.61	6	2.00	0.63
Oral sex without a barrier	18	3.22	1.00	6	3.17	1.17
Using a sex toy for vaginal sex with a barrier	18	1.50	0.71	7	1.57	0.53
Using a sex toy for vaginal sex without a barrier	17	2.88	1.17	7	2.14	0.90

(Table 7 continues)

(Table 7 continued)

Sexual Behavior	Female Partner			Male Partner		
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>
Using a sex toy for anal sex with a barrier	18	1.67	0.69	7	2.14	0.90
Using a sex toy for anal sex without a barrier	18	3.41	1.06	7	3.00	1.29
Vaginal sex with a barrier		N/A		7	2.71	0.76
Vaginal sex without a barrier		N/A		7	4.43	1.13
Anal sex with a barrier		N/A		7	2.86	0.90
Anal sex without a barrier		N/A		7	4.71	0.49

Table 8

Knowledge of the Sexual History of the Last Casual Female and Male Partners Among WSW

Knowledge of last partner	Casual female partner		Casual male partner	
	Yes	No	Yes	No
	<u>n</u> (%)	<u>n</u> (%)	<u>n</u> (%)	<u>n</u> (%)
Gender of the sexual partners of the last partner	7 (77.8%)	2 (22.2%)	3 (75.0%)	1 (25.0%)
How often last partner uses condoms or barriers with other partners	7 (77.8%)	2 (22.2%)	3 (75.0%)	1 (25.0%)
STD status of last partner	5 (55.6%)	4 (44.4%)	2 (50.0%)	2 (50.0%)
Number of sexual partners of last partner	4 (44.4%)	5 (55.6%)	1 (25.0%)	3 (75.0%)

Table 9

Knowledge of the Sexual History of the Last Regular Female and Male Partners Among WSW

Knowledge of last partner	Regular female partner		Regular male partner	
	Yes	No	Yes	No
	<u>n</u> (%)	<u>n</u> (%)	<u>n</u> (%)	<u>n</u> (%)
Gender of the sexual partners of the last partner	18 (100%)	0	5 (100%)	0
Number of sexual partners of last partner	15 (83.3%)	3 (16.7%)	4 (80.0%)	1 (20.0%)
STD status of last partner	14 (77.8%)	4 (22.2%)	5 (100%)	0
How often last partner uses condoms or barriers with other partners	11 (61.1%)	7 (38.9%)	4 (80.0%)	1 (20.0%)